exacerbated by the length of time – months or years – that it can take before investments start to turn a profit owing to the pace of construction, the difficulties of luring customers away from incumbent LECs, and the need to invest in a great deal of equipment before serving the first customer.[281] The kinds of equipment needed to provide that service also pose barriers in the form of very high fixed costs, many of which are sunk. While switches and other "intelligence" equipment can be moved from place to place, construction of wireline transmission facilities is literally "sunk" – once invested in, it cannot be moved, even if customer demand patterns change. In addition, producing telecommunications services requires very substantial economies of scale and scope. With these facts in mind, we explain how we will analyze barriers to entry in the telecommunications market – including scale economies, sunk costs, first-mover advantages, and absolute cost advantages – and we explain our approach to unbundling as a means of overcoming certain barriers to entry.

87. *Scale Economies.* Scale economies, particularly when combined with sunk costs and first-mover advantages (described just below), can pose a powerful barrier to entry.[282] If entrants are likely to achieve substantially smaller levels of sales than the incumbent, then with scale economies their average costs will be higher than those of the incumbent, putting them at a potentially significant cost disadvantage to the incumbent. Profitable entry may not be possible if retail prices are close to the incumbent's average costs. The greater the extent and size of the scale economies throughout the range of likely demand, the higher the barrier they pose.[283] By

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See CompTel Comments at 65-71; Covad Comments at 15-16; CompTel Reply at 6; *see also* Allegiance Reply at 3, 14-18. *But see* Verizon Reply at 135-36; BellSouth NERA Reply Decl. at para. 74. We recognize that today's market conditions make access to capital more difficult – and thus self-provisioning more difficult – than it may have been several years ago. But because the markets can change quickly, an impairment analysis that hung on the current state of the capital markets, and in particular on short-term fluctuations in access to capital, would either result in our rules quickly becoming out-of-date, or require frequent review that would contribute to market uncertainty. However, as part of the analysis to determine whether entry is economic, we recognize that a relevant factor is the cost of capital to competitors. Our impairment analysis will therefore consider the current and likely prospective cost of capital, based on our expectations of the availability and price of capital in the long-run.

281 *See, e.g.*, BTI Comments at 9 (noting that competitive LECs must amass a customer base before attracting private equity); Illuminet Comments at 8 (pointing out that "[t]he construction and operation of a stand-alone SS7 signaling system and the data bases necessary for provision of many services is a complex and very capital intensive undertaking which may serve as a barrier to entry for smaller firms.").

282 *See* AT&T Reply at 38; AT&T Willig Reply Decl. at para. 19; BellSouth NERA Reply Decl. at para. 75 (urging the Commission not to unbundle all elements because of the possibility of scale economies posing a barrier); Qwest Reply at 9-10; Qwest Farrell Reply Decl. at para. 12 ("If an element displays only ordinary economies of scale, the Commission should not require its unbundling unless that element also exhibits certain *additional* features that (perhaps in conjunction with the scale economies) create true entry barriers . . . . Such features might include large sunk costs relative to recurring costs, low rates of innovation, and high costs relative to complements (other network elements)."); Letter from Joan Marsh, Director, Federal Government Affairs, AT&T, to Marlene Dortch, Secretary, FCC, CC Docket No. 01-338, Attach. at 2, 4 (filed Jan. 10, 2003) (AT&T Jan. 10, 2003 *Ex Parte* Letter); *see also* WorldCom Reply at 14-15 (noting that incumbent LECs derive significant and relevant cost advantages from their economies of scale).

283 *See supra* note 259. Scale economies are necessarily more of a hurdle for small competitive LECs, which tend to serve fewer customers.

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contrast, scale economies are less of a barrier to entry if average costs reach a low point or begin to increase at some level of production less than total market demand, particularly if that level of production is one that a new firm can reasonably expect to achieve.[284] Thus, we will not find scale economies that typically exist for any entrant into any industry to pose a barrier, when they have not typically blocked such entry.[285] Indeed, the HMG ask whether a new entrant can achieve the minimum viable scale (*i.e.*, the lowest output at which entry is profitable), and thus recognize that scale economies that typically exist for any entrant into any industry do not pose a barrier, when they have not typically blocked entry.[286] In sum, we will consider whether the cost differences caused by scale economies are sufficiently large and persistent, alone or in combination with other factors, to be likely to make entry uneconomic. For similar reasons, we also examine scope economies to determine whether they, too, could contribute to a barrier to entry.

88. *Sunk Costs*. Sunk costs, particularly when combined with scale economies, can pose a formidable barrier to entry.[287] Sunk costs increase risk as well as an entrant's cost of

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We recognize, as did the *USTA* court, that if scale economies are present over the entire relevant market, the element may be "one for which multiple, competitive supply is unsuitable," such that unbundling could be appropriate to avoid wasteful duplication of the facility. *See USTA*, 290 F.3d at 427 (citing 2 KAHN, *supra* note 259, at 119); *see also, e.g.*, Mpower Reply at 11 (arguing that competitive LECs should not have to replicate the incumbent LECs' networks unnecessarily). We do not agree that *USTA* requires us to limit unbundling to those situations only where an element is wholly "unsuitable for competitive supply." *See, e.g.*, Qwest Reply at 9 (quoting *USTA*, 290 F.3d at 427). Rather, *USTA* urges us to consider the cost characteristics of elements and ensure that we do not mistakenly equate just any cost disparity with impairment. *See USTA*, 290 F.3d at 427 ("[C]ost comparisons of the sort made by the Commission [in the *UNE Remand Order*], largely devoid of any interest in whether the cost characteristics of an 'element' render it at all unsuitable for competitive supply, seem unlikely either to achieve the balance called for explicitly by Justice Breyer or implicitly by the [Supreme] Court as a whole [in *Iowa Utils. Bd.*] in its disparagement of the Commission's readiness to find '*any*' cost disparity reason enough to order unbundling.") (emphasis in *USTA*).

[284] The lowest output at which average costs reach their minimum (if it exists) is called the Minimum Efficient Scale. *See* CARLTON & PERLOFF, *supra* note 244, at 41.

[285] Similar to our analysis, the *USTA* court noted that "average unit costs are necessarily higher at the outset for any new entrant into virtually any business," *USTA*, 290 F.3d at 427, so scale economies (and cost differences in general) that pertain just to the beginning stages of entry might not be an appropriate factor in an unbundling analysis. *See also* Verizon Oct. 16, 2002 *Ex Parte* Letter at 3 ("A transient cost disparity resulting from differences in scale does not meet the standard for unbundling established by the Act."); *see also* Verizon Comments at 57-58 (arguing that new entrants in any industry routinely lose money for an initial period); AT&T Reply at 32-34, 37 (urging the Commission to find that cost differences and scale economies are relevant so long as they are not "universal" cost disparities, and to find that unbundling does not depend on an element being a natural monopoly); Qwest Reply at 9; SBC Reply at 46; Verizon Reply at 39-40; WorldCom Reply at 14; BOC Shelanski Reply Decl. at para. 2 ("Impairment must consist of more than the usual challenge of playing catch-up that any new entrant into a mature industry faces."), para. 3; Qwest Farrell Reply Decl. at paras. 9-12.

[286] *See supra* note 256; *see also* HMG § 3.3; AT&T Nov. 14, 2002 *Ex Parte* Letter, Attach. at 4-7.

[287] *See, e.g.*, AT&T Reply at 38-39; WorldCom Reply at 14-17; AT&T Willig Reply Decl. at para. 20 ("It is basic economics that the need to incur significant sunk costs to deploy facilities that have substantial scale economies establishes a significant entry barrier."), paras. 21-22; AT&T Jan. 10, 2003 *Ex Parte* Letter, Attach. at 4. *Cf.* BOC
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failure, which in turn can increase the cost of capital and discourage entry.[288] In addition, an entrant that knows that an incumbent LEC has incurred substantial sunk costs may be disinclined to enter a market because the incumbent LEC is likely to drop its prices, possibly to levels below average cost, in response to entry.[289] In these ways, sunk costs can act to give significant first-mover advantages to incumbent LECs.[290]

89. *First-Mover Advantages.* First-mover advantages can contribute to the factors described above.[291] First-mover advantages can include preferential access to buildings,[292] access to rights-of-way,[293] the higher risk of new entrants' failure (often exacerbated by high sunk costs), the fact that the incumbent LEC has substantial sunk capacity, operational difficulties faced by an entrant that have already been worked out by the incumbent LEC when it built out its network as a monopolist,[294] consumers' reluctance to switch carriers,[295] and advertising and brand name

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Shelanski Reply Decl. at para. 4 (urging Commission not to unbundle merely because new entrants face risks); Qwest Farrell Reply Decl. at para. 13.

288 *See* AREEDA & HOVENKAMP, *supra* note 242, para. 421c; GREER, *supra* note 244, at 240; CARLTON & PERLOFF, *supra* note 244, at 78; VISCUSI, VERNON, & HARRINGTON, *supra* note 240, at 161; HMG § 3.3. Factors that can add to the risk of entry can include whether the entrant will attract enough customers to take advantage of scale economies, whether it can install its equipment at the estimated cost, whether the incumbent will perform its required tasks with the necessary timeliness and quality, and whether the incumbent will respond to entry by dropping its price, as well as legal and regulatory uncertainties about future rules. *Cf., e.g.*, AT&T Jan. 10, 2003 *Ex Parte* Letter, Attach. at 4.

289 *See* SHY, INDUSTRIAL ORGANIZATION, *supra* note 250, at 186-206.

290 *See UNE Remand Order*, 15 FCC Rcd at 3736-37, paras. 77-80. *Cf.* Allegiance Reply at 13 (noting that requesting carriers incur sunk costs in negotiating arbitration agreements and deploying OSS for the purposes of ordering UNEs).

291 *See, e.g.*, WorldCom Reply at 17-18; AT&T Willig Reply Decl. at paras. 29-31; AT&T Jan. 10, 2003 *Ex Parte* Letter, Attach. at 6-8.

292 *See, e.g.*, AT&T Reply at 50 (noting that delays associated with obtaining building access can prevent carriers from providing service); Letter from Ruth Milkman, Counsel for WorldCom, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach. (filed Oct. 25, 2002) (WorldCom Oct. 25, 2002 *Ex Parte* Letter). The Commission has an open proceeding on building access issues. *See Promotion of Competitive Networks in Local Telecommunications Markets*, WT Docket No. 99-217, CC Docket Nos. 96-98, 88-57, First Report and Order and Further Notice of Proposed Rulemaking in WT Docket No. 99-217, Fifth Report and Order and Memorandum Opinion and Order in CC Docket No. 96-98, and Fourth Report and Order and Memorandum Opinion and Order in CC Docket No. 88-57, 15 FCC Rcd 22983 (2000) (*Competitive Networks Order*).

293 *See, e.g.*, WorldCom Reply at 17-18. Section 224 of the Act provides a detailed scheme for the regulation of access to rights-of-way. 47 U.S.C. § 224. While section 224 provides certain rights to requesting telecommunications carriers, the requesting carriers must still face costs inherent in exercising those rights – costs that the incumbent LEC does not face because it already has access to rights-of-way (for its existing network).

294 *See, e.g.*, AT&T Reply at 49-51 (noting that hot cut issues can cause delays and degrade quality of new entrant's service); Letter from Laurence J. Kotlikoff, Professor of Economics, Boston University, to Michael K. Powell, Chairman, FCC, *et al.*, CC Docket Nos. 01-338, 96-98, 98-147, Attach., *in* Letter from Penelope K. Alberg, AT&T, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Jan. 22, 2003) (AT&T Jan. 22, (continued….)

preference.[296] First-mover advantages often create an absolute cost disadvantage for entrants, which, if large enough, can be a barrier to entry.[297] Some of these factors interact with other factors, such as scale economies, to create barriers to entry.[298] As we consider these factors, we will keep in mind that new entrants may have countervailing advantages (second mover advantages) that mitigate some of these factors. For example, competitors are able to design new networks, and may be able to offer higher quality services than incumbent LECs because they are relying on newer equipment.[299] While these countervailing advantages are relevant, they are not necessarily dispositive and do not, without further analysis of the other relevant factors we describe, demonstrate a lack of impairment.[300]

90. *Absolute Cost Advantages.* When the incumbent LEC has absolute cost advantages, other firms may be deterred from entering the market.[301] Particularly if the incumbent LEC is providing service at rates close to its average cost, competitive LECs may find it difficult or impossible to provide service in an economic fashion, because they likely will have higher average costs than the incumbent LEC. Small disadvantages, however, will not pose a barrier unless they raise an entrant's costs above revenues.[302]

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2003 *Ex Parte* Letter). *Cf.* BOC Shelanski Decl. at paras. 30-31 (arguing that costs of combining network elements with non-incumbent facilities should not result in a finding of impairment unless they are so high as to make alternatives economically infeasible).

295 Consumers' reluctance to switch carriers may be caused by inertia or the high costs of changing.

296 We note, as well, that requesting carriers may also have very recognizable brand names. *See* BellSouth NERA Reply Decl. at para. 73.

297 *See, e.g.*, Z-Tel Comments at 26 (noting that incumbent LECs have cost advantages resulting from their historic monopoly position); Allegiance Reply at 14 (noting that requesting carriers incur higher marketing and promotional costs than incumbent LECs).

298 For example, the incumbent LEC's advantage in advertising or brand name preference can affect an entrant's ability to reach a large enough size to achieve the scale economies necessary to compete with the incumbent. Advertising and brand name preference play a critical role in the HMG in helping to determine whether an entrant can achieve the minimum viable scale. *See* HMG § 3.3 n.33 ("Entrants' anticipated share of growth in demand depends on incumbents' capacity constraints and irreversible investments in capacity expansion, as well as on the relative appeal, acceptability, and reputation of incumbents' and entrants' products to the new demand.").

299 *See* SBC Comments at 36; Verizon Comments at 42; Verizon Reply at 42; BellSouth NERA Reply Decl. at para. 72. Competitive LECs may also have countervailing advantages in being free to avoid unattractive markets. *See* Verizon Reply at 43.

300 *See* Verizon Reply at 41 (arguing that the incumbent LECs' scale and scope economies are irrelevant because competitors design new networks).

301 *See, e.g.*, AT&T Jan. 10, 2003 *Ex Parte* Letter, Attach. at 6.

302 We find support for considering absolute cost advantages, as does Professor Willig, in the HMG. The HMG ask whether potential committed entrants with significantly higher costs than the incumbents can act to hold prices down to pre-merger levels. Similarly, the HMG ask whether potential committed entrants can achieve the minimum viable scale – absolute cost advantages could prevent them from doing so. This is analogous to our question – whether new (continued….)

91. *Barriers Within the Control of the Incumbent LEC.* We also examine those barriers to entry that are solely or primarily within the control of the incumbent LEC. We look to these barriers because it is within the control of the incumbent LEC to eliminate them or mitigate their effects, which could eliminate the need to unbundle network elements to overcome them. This approach flows from the Act's call for a deregulatory approach where possible.[303] Thus, if there are technical or operational barriers solely or primarily within the incumbent LEC's control,[304] unbundling a network element may give the requesting carrier an opportunity to compete while the incumbent LEC determines whether or how it might cure the provisioning or operational problems. By contrast, factors that are within the control of the new entrant, such as those that might be caused by choosing a particular network architecture, are less likely to result in an unbundling determination to the extent they are truly within the new entrant's control.[305] Accordingly, we disagree with commenters that argue that we should give operational barriers less weight in our impairment analysis and deal with them more directly instead.[306] Rather, we find that some operational difficulties are inherent in the unbundling process, and find it necessary to take them into account in our analysis.

(ii) Evidence of Impairment

92. Parties have submitted an enormous amount of evidence for our consideration in this proceeding. We will address the merits of this evidence in the Parts below regarding the application of the unbundling analysis to specific UNEs. As guidance for our analysis, however, we explain here what kinds of evidence we will find most persuasive in those discussions. We do not adopt a "burden of proof" approach that places the onus on either incumbent LECs or competitors to prove or disprove the need for unbundling.[307] Rather, in the application of our

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firms can enter the market to challenge the incumbent LECs. *See* AT&T Nov. 14, 2002 *Ex Parte* Letter, Attach. at 3-4, 7-8; Letter from C. Frederick Beckner, III, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach. at 3 (filed Feb. 12, 2003) (AT&T Feb. 12, 2003 *Ex Parte* Letter); *see also* AT&T Jan. 22, 2003 *Ex Parte* Letter, Attach. *But see* Letter from Cronan O'Connell, Vice President – Federal Regulatory, Qwest, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach. (filed Feb. 6, 2003) (Qwest Feb. 6, 2003 *Ex Parte* Letter) (citing A. Douglas Melamed that argues that the HMG do not contain any explicit reference to any absolute cost disadvantages.).

303 *See* Preamble to the 1996 Act.

304 *See, e.g.*, AT&T Reply at 49 ("Delays that would result from denials of access to a UNE materially diminish CLECs' ability to provide service in multiple ways. For example, hot cuts cause delays that have prevented CLECs from serving the overwhelming majority of customer locations . . . .").

305 *See, e.g.*, Letter from Michael E. Glover, Senior Vice President and Deputy General Counsel, Verizon, and Susanne Guyer, Senior Vice President – Federal Regulatory Affairs, Verizon, to William F. Maher, Chief, Wireline Competition Bureau, FCC, at 6-7, *in* Letter from Ann D. Berkowitz, Project Manager – Federal Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Jan. 10, 2003) (Verizon Jan. 10, 2003 UNE-P *Ex Parte* Letter).

306 *See, e.g.*, SBC Comments at 36-37.

307 *See, e.g.*, ALTS *et al.* Comments at 123-24; BellSouth Comments at 18-21; NuVox Reply at 24-25; Letter from Michael E. Glover, Senior Vice President and Deputy General Counsel, Verizon, and Susanne Guyer, Senior Vice

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standard, we examine the record evidence in light of the Act's goals to make the best determination regarding the need for unbundling.

93. As we anticipated in the *Triennial Review NPRM*, we agree with commenters that argue that actual marketplace evidence is the most persuasive and useful kind of evidence submitted.[308] In particular, we are most interested in granular evidence that new entrants are providing retail services in the relevant market using non-incumbent LEC facilities, for two main reasons. First, it is faithful to the Supreme Court's admonition that we consider "the availability of elements outside the incumbent's network" as we apply the "impair" standard.[309] Second, this kind of evidence demonstrates better than any other kind what business decisions actual market participants have made regarding whether it is feasible to provide service without relying on the incumbent LEC. Specifically, this evidence shows us whether *new entrants*, as a practical matter, have surmounted barriers to entry in the relevant market.[310]

94. As we examine the evidence of facilities deployment by competitive LECs in the specific UNE discussions, we will give it substantial weight,[311] but we do not agree that we must find it conclusive or presumptive of a particular outcome without additional information or analysis.[312] For example, if the marketplace evidence shows that new entrants have deployed a

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President – Federal Regulatory Affairs, Verizon, to William F. Maher, Chief, Wireline Competition Bureau, FCC, at 3, *in* Letter from William P. Barr, Executive Vice President and General Counsel, Verizon, to Michael K. Powell, Chairman, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Dec. 17, 2002) (Verizon Dec. 17, 2002 *Ex Parte* Letter). Because we decline to adopt a "burden of proof" approach, we dismiss as moot that portion of the CompTel Nov. 26, 2001 Joint Conference Petition in which CompTel asks the Commission to impose a burden of proof on parties requesting that a UNE no longer be unbundled. *See* CompTel Nov. 26, 2001 Joint Conference Petition at 13.

308 *See Triennial Review NPRM*, 16 FCC Rcd at 22789, para. 17; *see also* Qwest Comments at 5, 11-12; SBC Comments at 27; Qwest Farrell Reply Decl. at para. 17. *But see* Competitive Enterprise Institute Comments at 2 (urging the Commission not to rely on marketplace evidence in a way that freezes its rules to today's conditions).

309 *Iowa Utils. Bd.*, 525 U.S. at 389; *see also* Letter from Karen Brinkmann, Counsel for ITTA, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach. at 1 (filed Jan. 29, 2003) (ITTA Jan. 29, 2003 *Ex Parte* Letter) (noting that question is whether elements are available from sources other than incumbent LEC).

310 *Cf., e.g.*, BOC Shelanski Reply Decl. at paras. 8-12 (arguing that, as facilities-based entry increases, unbundling makes less sense because it punishes earlier facilities-based entrants, fails to recognize that the market can only absorb a limited number of firms, and confuses impairment with lack of an attractive business case). We recognize the credibility of econometric analytical techniques, such as regression analysis, when properly specified and conducted.

311 *See, e.g.*, BOC Shelanski Decl. at para. 17; Qwest Reply at 7-8; BOC Shelanski Reply Decl. at para. 17; Verizon Jan. 10, 2003 *Ex Parte* Letter, Attach. at 2 (arguing that the Commission should presume that alternative facilities can be deployed anywhere); Verizon Dec. 17, 2002 *Ex Parte* Letter, Attach. at 2 (arguing that no carriers are impaired in markets where competitive entry has occurred), 3 (arguing for presumption of no impairment when facilities at issue have been significantly deployed on a competitive basis). Similarly, we do not presume that if one carrier can enter the market without UNEs, there is no impairment.

312 *See, e.g.*, CompTel Comments at 62 (urging the Commission not to rely on a "simple count" of alternative facilities); GCI Comments at 19; Z-Tel Comments at 23; AT&T Reply at 41-43; NuVox Reply at 23; SBC Reply at (continued....)

certain type of facility, we will consider the facts as evidence that the barriers to entry in that market for that element are surmountable.[313] In deciding what weight to give this evidence, we will consider how extensively carriers have been able to deploy such alternatives, to serve what extent of the market, and how mature and stable that market is.[314] Thus, while we agree that such evidence may indicate a lack of impairment, we disagree with commenters that argue that such evidence is dispositive or creates a rebuttable presumption of no impairment.[315] We likewise disagree that evidence of deployment of alternative facilities or availability of non-UNE alternatives from the incumbent LEC means that a market is "contestable" (as some parties use that term) and therefore *necessarily* shows a lack of impairment.[316] Rather, as just stated, evidence of alternative deployment is probative but not necessarily dispositive of a lack of impairment. And as we explain in detail below, the availability of non-UNE alternatives from incumbent LECs (such as tariffed services or resold retail services) has little bearing on our impairment analysis.[317]

95. Likewise, we disagree that evidence of alternative deployment is irrelevant unless access to those facilities is available to requesting carriers on a wholesale basis.[318] We examine

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10 ("If competitive facilities already have been deployed, then *ipso facto* they can be deployed. That does not mean that the mere presence of a single competitive facilities in a particular market necessarily precludes a finding of impairment in that market."); Talk America Reply at 18; WorldCom Reply at 29.

[313] *Cf.* Qwest Comments at 11-12.

[314] *See* CompTel Comments at 72-73 (noting that many carriers that have self-deployed are now bankrupt or have left the market); Covad Comments at 16-18; *see also* Talk America Comments at 22 (noting that industry must mature before facilities-based competition will emerge).

[315] *See* BellSouth Comments at 17, 23; Qwest Comments at 11 ("The fact of widespread CLEC entry without reliance on a particular UNE from the incumbent should be deemed to – and clearly does – establish that lack of access to that UNE under section 251 does not impair the ability of a CLEC to provide service."); SBC Comments at 27 ("That some CLECs are in fact providing service over their own facilities is *dispositive* evidence that carriers are not impaired without access to ILEC facilities.") (emphasis in original); Verizon Comments at 43-46 ("Thus, if some CLECs use non-ILEC facilities to serve particular types of customers or geographic locations, then no CLEC should be considered impaired without access to the relevant UNEs – not just with respect to the specific customers or locations served by the original CLECs, but with respect to all similar customers or locations [as well as where] circumstances are not strictly similar."); Verizon Reply at 38.

[316] *See, e.g.*, Verizon Dec. 17, 2002 *Ex Parte* Letter, Attach. at 2; Letter from Brian J. Benison, Associate Director – Federal Regulatory, SBC, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach. at 2 (filed Jan. 29, 2003) (SBC Jan. 29, 2003 *Ex Parte* Letter). *But see* Letter from C. Frederick Beckner III, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Jan. 31, 2003) (AT&T Jan. 31, 2003 *Ex Parte* Letter) (arguing that a so-called "contestability" analysis that focuses on the presence of a single alternative on a specific route is insufficient to judge impairment).

[317] *See infra* para. 102.

[318] *See, e.g.*, Covad Reply at 13; *see also* NuVox Reply at 23, 28; Sprint Reply at 19; Talk America Reply at 18-20; Letter from Frederick W. Hitz, III, Director, Rates and Tariffs, General Communication, Inc., to William Maher, Chief, Wireline Competition Bureau, FCC, CC Docket Nos. 01-338, 96-98, 98-147, 01-318, 98-56, 98-141 at 4, *in* Letter from John T. Nakahata, Counsel for GCI, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98,
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whether wholesale suppliers exist, but our standard is not based solely on whether there is a wholesale market. Instead, we also consider the possibility of self-provisioning. We also disagree that deployment of alternative facilities is necessarily irrelevant unless carriers have been able to serve customers profitably over those facilities.[319] We may consider the extent to which carriers have been able to serve customers profitably, but we recognize that profitability can be affected by many factors other than those we examine for the "impair" analysis, such as whether there is overcapacity in the market,[320] whether facilities-based carriers are still in the process of deploying capacity,[321] and the scope economies involved in providing multiple services.[322]

96. On the other hand, if the marketplace evidence shows that new entrants have not widely deployed a particular kind of facility, we will consider the facts as some evidence that barriers to entry in that market for that element are preventing the deployment. We will not generally presume from lack of entry or lack of deployment, however, that there are barriers to entry in the relevant market,[323] or that any barriers cannot be overcome through means other than unbundling without further analysis. For example, the market may be nascent and therefore not mature enough to determine whether the lack of entry demonstrates impairment. We also consider the possibility that past unbundling policies may have discouraged the build-out of facilities. We further recognize that many factors contribute to a new entrant's decision where to place its facilities, and that new entrants may in some cases simply choose not to enter a particular market. We will not necessarily presume from that lack of entry that unbundling is warranted.[324]

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98-147, 01-318, 96-56, 98-141 (filed Jan. 27, 2003) (GCI Jan. 27, 2003 *Ex Parte* Letter) (arguing that the wholesale market for inputs is the relevant market to consider in the impairment analysis).

319 *See, e.g.*, AT&T Reply at 42-43.

320 If more facilities-based carriers have entered the market than can be supported by market demand, creating overcapacity and generating low prices, none of the carriers may be profitable. However, self-provisioning has been demonstrated to be achievable, and with exit of one or more carriers, the remaining carriers may achieve profitability.

321 There may be clear evidence that carriers are profitably serving customers in a particular area, but have not achieved overall profitability because they are still in the process of expanding their business.

322 It can be difficult to determine the profitability of an individual product for a multiproduct firm. While the revenues obtained from a particular product may not completely cover the stand-alone costs of providing just that product, they may be sufficient to cover the incremental costs, such that selling the product adds to the firm's profitability. *See* WILLIAM J. BAUMOL, JOHN C. PANZAR & ROBERT D. WILLIG, CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE 351-56 (1988).

323 *See* Verizon Comments at 45, 60-61; SBC Reply at 47 ("To the extent competitive facilities have not been deployed in a particular market, therefore, the Commission must attempt to determine why, and it must differentiate between true impairment and factors that have nothing to do with impairment.").

324 *See* Qwest Comments at 13; BOC Shelanski Decl. at paras. 4, 42; BOC Shelanski Reply Decl. at para. 25.

97. We also examine evidence that intermodal alternatives[325] can be used to provide telecommunications service. In appropriate instances, evidence of the deployment of intermodal alternatives informs our judgment on the "impair" factors described above, and in those circumstances we will give weight to deployment of intermodal alternatives in our analysis. Specifically, we consider whether these intermodal alternatives permit a requesting carrier to serve the market, either through self-provisioning or by obtaining capacity on a wholesale basis.[326] We take these alternatives into account for several reasons. First, the Act expresses no preference for the technology that carriers should use to compete with the incumbent LECs. Second, we do not want to prejudice market participants' business decisions about whether to deploy alternative facilities by basing our unbundling rules on the presence or absence of any certain technology. Third, in some instances, the presence of intermodal alternatives can be just as probative of a lack of impairment as the presence of traditional wireline "telephone" deployment. The fact that an entrant has deployed its own facilities – regardless of the technology chosen – may provide evidence that any barriers to entry can be overcome. This approach is consistent with *USTA*'s admonition that we should consider intermodal competitors as relevant to our analysis.[327] Just as with regard to the deployment of new traditional facilities, however, we do not find the presence of intermodal alternatives dispositive in our impairment analysis,[328] as some commenters suggest.[329] We also disagree with commenters that suggest that deployment of intermodal alternatives is irrelevant if the facilities are not available to requesting carriers on a wholesale basis,[330] for reasons discussed in the preceding paragraphs. As we evaluate evidence of intermodal deployment, we will consider to what extent services provided

325 By "intermodal," we refer generally to facilities or technologies other than those found in traditional telephone networks. These include, for example, traditional or new cable plant, wireless technologies (satellite, mobile, and fixed), power line (electric grid) technologies, or other technologies not rooted in traditional telephone networks.

326 Many commenters have urged us to take services provided over intermodal alternatives into account. *See* Verizon Oct. 16, 2002 *Ex Parte* Letter at 4 ("In determining whether an element meets the standard for unbundling, the Commission must consider the full range of technologies by which that element's *function* could be performed.") (emphasis in original); *see also* Alcatel Comments at 17-18; Qwest Comments at 6-8, 15; USTA Comments at 4-5; Verizon Comments at 46-51; BOC Shelanski Decl. at para. 43; AT&T Reply at 57 ("[T]he Commission must consider whether substitute services that are offered outside the ILECs' networks have led to the profitable provision of service by multiple providers . . . ."); Qwest Reply at 16-17; BOC Shelanski Reply Decl. at para. 23; Qwest Farrell Reply Decl. at para. 18. *But see* Moline and CCG Comments at 8-11 (urging Commission not to give too much weight to intermodal competition); Sprint Comments at 12-13 (arguing that even where intermodal alternatives are available, unbundling may be necessary to promote robust competition); NuVox Reply at 21-22.

327 *See USTA*, 290 F.3d at 429.

328 *See supra* para. 64.

329 *See, e.g.*, Qwest Comments at 6-9; Verizon Comments at 46-48.

330 *See* ALTS *et al.* Comments at 39-40; ASCENT Comments at 26; UNE-P Coalition Comments at 19; *see also* Allegiance Reply at 21; ASCENT Reply at 13; Covad Reply at 13. *But see* Qwest Reply at 16-17. We also address this argument in more detail *infra* para. 112. We also disagree that intermodal alternatives should not be considered because "CLECs desire to offer wireline service, not wireless service or cable telephony." *See, e.g.*, ASCENT Reply at 13. As explained above and as the *USTA* decision explained, we look at alternatives for whether they provide comparable service, not the same technology. *See USTA*, 290 F.3d at 429.

over these intermodal alternatives are comparable in cost, quality, and maturity to incumbent LEC services.[331]

98. In some cases, the differences between intermodal alternatives and traditional wireline deployments may reduce the weight we give to the deployment of alternatives. For example, some carriers relying on intermodal alternatives have not needed to overcome the same kinds of barriers as new entrants that start without any facilities at all. Cable telephony and cable modem service, for example, have developed because cable operators have been able to overlay additional capabilities onto networks that they built for other purposes, often under government franchise, and therefore have first-mover advantages and scope economies not available to other new entrants, which lower their incremental costs of providing the additional services.[332] Similarly, we recognize that some intermodal technologies will only be available to one or a few firms due to legal restrictions, such as spectrum licensing requirements, that may limit the number of firms that can use a given technology in one geographic area. When an intermodal technology is limited in availability to only one or a few telecommunications carriers – either because of the historical economic characteristics of their providers or legal restrictions – we will consider whether that technology contributes to a wholesale market in accessing the customer. We may give less weight to intermodal alternatives that do not contribute to the creation of a wholesale market in accessing the customer or do not provide evidence that self-deployment of such access is possible to other entrants. In addition, if the record evidence shows that there are limitations on the number or types of customers that can be served by a particular technology, we will consider whether an entrant could use this technology profitably to target only those customers that can be served by the alternative technology.

99. We will also give consideration to cost studies, business case analyses, and modeling if they provide evidence at a granular level concerning the ability of competitors economically to serve the market without the UNE in question. While these are useful tools for analysis, we may give this evidence less weight than actual marketplace evidence for several reasons. First, as stated above, actual marketplace evidence shows whether new entrants, as a practical matter, have surmounted barriers to entry in the relevant market. Second, these studies are generally based on estimates of costs and revenues that can be difficult to verify, and thus are more easily manipulated by the advocates in this proceeding. Third, there may be issues and factors that affect a competitor's ability to enter that are difficult to foresee (such as unexpected costs, delays, revenue streams, or new niche products). Thus, there will be uncertainty concerning the existence of such factors when examining these studies, while examination of actual marketplace evidence will reveal whether such factors exist and are significant.

[331] *See* Allegiance Reply at 24-25. Our analysis is necessarily based on the current technical capabilities, economic characteristics, and patterns of use of intermodal alternatives. These facts are likely to change going forward as these and other technologies develop. The changes may affect future impairment determinations.

[332] *Cf.* AT&T Reply at 34 (arguing that the presence of a cable competitor has *no* relevance to the impairment analysis).

100. In conducting our impairment analysis, we recognize that decisions on whether to enter are based not just on the cost of entry but also on the revenues to be gained.[333] Thus, we will consider, where provided, evidence of the revenue opportunities available to those carriers that provide services over the relevant facilities, keeping in mind that competitors are able to choose which markets to enter and to avoid unattractive markets.[334] We consider *all* the revenue opportunities that a competitor can reasonably expect to gain over the facilities, from providing all possible services that an entrant could reasonably expect to sell,[335] taking into account limitations on entrants' ability to provide multiple services, such as diseconomies of scope in production, management, and advertising.[336]

101. In our impairment analysis, we examine both whether new entrants can provide retail services over non-incumbent facilities and whether new entrants can provide wholesale services over non-incumbent facilities.[337] Rather than providing the retail services itself,[338] a wholesaling carrier will be providing service to other carriers that will provide, individually or as a group, the range of services that customers want, at market-based prices. Thus, the wholesale carrier's sales and revenues are dependent on the services the retail carriers will demand and the prices they are willing to pay, which in turn depend on the revenues they gain from the retail services provided.[339] Wholesale carriers may not be limited by the same factors that limit the likely market share of carriers providing retail service, since they will be able to serve multiple carriers' needs. Thus, if advertising or diseconomies of scale or scope limit individual carriers' market shares and product lines, which could make self-deployment of facilities uneconomic, a wholesale carrier may be able to serve multiple carriers and overcome these limits in the aggregate.

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333 *See, e.g.*, AT&T Comments at 36; CompTel Comments at 71 (urging the Commission to take profitability into account in the analysis of self-provisioning); Talk America Comments at 15 (noting that financial viability depends on the difference between retail rates and the cost of providing service).

334 *See USTA*, 290 F.3d at 423 (urging the Commission to consider high retail rates as they relate to revenue opportunities); Verizon Comments at 42.

335 *See* Verizon Comments at 57.

336 Diseconomies of scope are the opposite of economies of scope. Diseconomies of scope occur when the cost of producing a good rises when a firm attempts to produce a second good. *See* John C. Panzar, *Technological Determinations of Firm and Industry Structure*, *in* 1 HANDBOOK OF INDUSTRIAL ORGANIZATION 16 (Richard Schmalensee and Robert Willig, eds., 1989).

337 The wholesale provision of services would not be limited to exchange access services, but would include all access services. *See infra* Part V.B.2.c.

338 This implies the carrier is vertically integrated, providing both wholesale and retail service itself. The product it provides from its upstream wholesale service is then combined with other inputs to provide downstream retail service.

339 The demand for the wholesale carrier services is therefore a derived demand from retail sales.

102. We reaffirm our prior conclusion in the *UNE Remand Order* to afford little weight to evidence that requesting carriers are using incumbent LEC tariffed services as relevant to our unbundling determination.[340] Specifically, many commenters have urged us to find that requesting carriers are not necessarily impaired if they can use incumbent LEC resold or retail tariffed services, such as special access, to provide their retail service.[341] We decline to adopt this position. We conclude that it would be inconsistent with the Act if we permitted the incumbent LEC to avoid all unbundling merely by providing resold or tariffed services as an alternative.[342] Such an approach would give the incumbent LECs unilateral power to avoid unbundling at TELRIC rates simply by voluntarily making elements available at some higher price. Because the Act contains three modes of entry, we cannot find an approach that would so easily remove one mode from the Act to be a reasonable reading of Congress's intent.[343] Indeed, such an approach would also be contrary to the Act's requirement that unbundled facilities – facilities without which serving the market becomes uneconomic – should be priced at cost-based rates[344] and our determination that TELRIC is the appropriate methodology for determining those rates – an approach to rates that the Supreme Court has affirmed.[345] In addition, resold and retail tariffed offerings present different opportunities and risks for the requesting carrier than the use of UNEs or non-incumbent LEC alternatives.[346] Also, forcing requesting carriers to rely on tariffed offerings would place too much control in the hands of the incumbent LECs, which could subsequently alter their tariffs and thereby engage in a vertical price squeeze.[347]

103. Likewise, we disagree with commenters that argue that the presence of a tariffed offering that is subject to substantial competition in the retail market should preclude an impairment finding with respect to the UNEs used to provide the relevant service.[348] As explained in greater detail in Parts V.B.1.d(iii) and V.B.2.c below, our unbundling analysis

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340 *See UNE Remand Order*, 15 FCC Rcd at 3732-34, paras. 67-70; *see also* AT&T Comments at 38-39; ATTWS Comments at 14-16; CompTel Comments at 64-65; Allegiance Reply at 30-31; AT&T Reply at 56.

341 *See* SBC Comments at 27-29; Verizon Comments at 51-55; BOC Shelanski Reply Decl. at para. 21; Verizon Dec. 17, 2002 *Ex Parte* Letter, Attach. at 8-10.

342 *UNE Remand Order*, 15 FCC Rcd at 3732-33, para. 67.

343 *See also Iowa Utils. Bd.*, 120 F.3d at 809-10 (rejecting a similar interpretation urged by incumbent LECs that would have given them the freedom to circumvent the unbundling obligations of section 251(c)(3) by choosing to offer network elements as services).

344 *See* 47 U.S.C. § 252(d)(1)(A)(i).

345 *See Verizon*, 535 U.S. at 497-528.

346 *UNE Remand Order*, 15 FCC Rcd at 3733, para. 68.

347 *UNE Remand Order*, 15 FCC Rcd at 3733, para. 69. SBC, for one, points out that the Commission could evaluate tariffed services and refuse to consider as alternatives those that it finds to be in place merely to avoid the unbundling rules, but this misses the points described in the text. *See* SBC Comments at 28-29.

348 *See, e.g.*, Verizon Comments at 53.

considers service, but does not examine whether the relevant market is competitive as part of the unbundling analysis.

104. Similarly, as we found in the *UNE Remand Order*,[349] we do not find that wherever incumbent LECs have received pricing flexibility, we should not unbundle the relevant network elements.[350] Our pricing flexibility rules go to protecting consumers from anticompetitive pricing, which is not the same as our unbundling rules, which go to asking whether entry into a market is economic and to serving a host of statutory goals beyond protecting consumers from anticompetitive pricing. Thus, the "impair" test and the test for pricing flexibility are different, reflecting these different aims. Moreover, our unbundling analysis is far more granular, in many cases, than our pricing flexibility analysis. This is because competition in some parts of a market may be sufficient to constrain prices, but insufficient to demonstrate a lack of impairment. In the discussions of particular elements below, we consider evidence that competitors have collocated or deployed alternative facilities as highly relevant to our impairment analysis, but we will not presume that a grant of pricing flexibility necessitates a finding of lack of impairment.

(iii) Rejection of Other Approaches to Impairment

105. In this Part, we explain why we reject other approaches to impairment that commenters have put forward.

106. *UNE Remand Impairment Approach.* We disagree with commenters that press us to maintain the approach to unbundling that the Commission adopted in the *UNE Remand Order*.[351] We recognize that there are benefits to keeping a single regulatory standard in place if doing so can provide market certainty and predictability. The *UNE Remand* approach, however, has proven overbroad in some instances, and was rejected by the D.C. Circuit as insufficiently rigorous.[352] We could thus not maintain it, even if we found a good policy reason to do so.[353] While we no longer rely on, or formally examine, the five *UNE Remand* factors as a basis for our analysis of impairment, these factors still play a role in our analysis as they relate to the barriers to entry we have identified above.[354]

[349] *See UNE Remand Order*, 15 FCC Rcd at 3756-57, paras. 131-32, 3849, para. 341 n.673.

[350] *See* Verizon Comments at 53-54; Verizon Dec. 17, 2002 *Ex Parte* Letter, Attach. at 6-8.

[351] *See, e.g.*, ALTS *et al.* Comments at 27-28; ASCENT Comments at 15-18; AT&T Comments at 34-40; Eschelon Comments at 7; McLeodUSA Comments at 4; NewSouth Comments at 48-50; NuVox Comments at 20, 22-33; Ohio Commission Comments at 5; Progress Telecom Comments at 16; Sprint Comments at 7-8; UNE-P Coalition Comments at 16-17, 20-21; WorldCom Comments at 50-52; UNE-P Coalition Reply at 15-17; Mpower Oct. 11, 2002 *Ex Parte* Letter, Attach. at 4. *But see* Verizon Comments at 55-61.

[352] *See USTA*, 290 F.3d at 415.

[353] We do not address the comments of parties that focused on the *UNE Remand* factors in their opening comments, before the D.C. Circuit issued its *USTA* decision, except to the extent those comments are still relevant after *USTA*.

[354] *See, e.g.*, WorldCom Reply at 11-12 (urging Commission to keep *UNE Remand* standard with modifications to comport to *USTA*).

107. *Essential Facilities Doctrine.* As explained above in Part V.B.1.c, we use the essential facilities doctrine as a guide in formulating our "impair" standard, but we do not adopt the essential facilities doctrine as our standard.[355] First, as in prior orders, we point out that Congress could have codified the essential facilities doctrine in section 251(d)(2), but chose not to. Indeed, legislative history shows that Congress was aware of the essential facilities doctrine when it enacted section 251(d)(2), yet chose to use the ambiguous word "impair" rather than suggesting that the existing law of essential facilities should determine which network elements should be unbundled.[356] Second, the structure of the Act itself suggests that we cannot equate impairment with the essential facilities doctrine. The essential facilities doctrine is more analogous to the "necessary" standard of section 251(d)(2)(A) than to the "impair" standard of section 251(d)(2)(B). That is, before a court would require an owner to share its facility with competitors, it would determine that the facility was "essential" for competition. "Essential" appears comparable to "necessary."[357] To equate "essential" with "impair" would collapse the Act's two unbundling standards, rather than respect the dichotomy that Congress established. Finally, to adopt the essential facilities doctrine would disregard the fact that Congress chose to use a different standard. That is, where Congress wanted to address points that are analogous to parts of the essential facilities doctrine, it did so. For example, once a court determines that a facility is "essential," it must decide how it should be shared and at what price. Congress already put these mechanisms in place through the sharing requirement of section 251(c)(3) and the pricing requirements of section 252(d)(1). Indeed, Congress's requirements that facilities be shared at cost-based rates, and on a nondiscriminatory basis, are potentially more rigorous than the requirements that most courts would impose on the owner of an essential facility.[358] This additional departure from the essential facilities doctrine lends support to our conclusion that Congress did not intend for us to read it into the "impair" standard.

108. However, we incorporate important lessons from scholars who have examined the essential facilities doctrine into our interpretation of "impair." As the D.C. Circuit has noted, the essential facilities doctrine can "offer useful concepts for agency guidance when Congress has *directed* an agency to provide competitor access in a specific industry."[359] Indeed, scholars have

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355 *Cf.* BellSouth NERA Reply Decl. at para. 58 ("[I]mpairment cannot occur when a network element does not meet the definition of an essential facility."). *But see* AT&T Reply at 35; NewSouth Reply at 9-10; WorldCom Reply at 19-20; Z-Tel Reply at 57-60.

356 *See* 137 Cong. Rec. S7054, S7058 (daily ed. June 5, 1991 (reading S. 1200, 102d Cong. § 202 (1991)); *see also UNE Remand Order*, 15 FCC Rcd at 3728-30, paras. 57-61 (discussing essential facilities doctrine).

357 Thus, a significant cost disadvantage that hinders the ability of competitors to enter may be sufficient to trigger a finding of impairment, but may not qualify the facility as essential.

358 INGO VOGELSANG & BRIDGER M. MITCHELL, TELECOMMUNICATIONS COMPETITION: THE LAST TEN MILES 57 (1997).

359 *USTA*, 290 F.3d at 427 n.4 (emphasis in original).

noted the drawbacks of mandatory sharing of facilities in their criticisms of the essential facilities doctrine, and we have found these criticisms useful in our standard as explained above.[360]

109. *Market Power Analysis and the Use of Antitrust or HMG Analysis.* We reject the arguments that we should require the unbundling of network elements to remove an incumbent LEC's market power in the retail market and that we should use the HMG to identify market power.[361] The purposes of a market power analysis are not the purposes of section 251(d)(2). While this antitrust analysis attempts to determine whether market participants would be able to exercise market power and raise prices above competitive levels if a merger were consummated, the Act requires only that network elements be unbundled if competing carriers are impaired without them, regardless of whether the incumbent LEC is exercising market power or the unbundling would eliminate this market power. A market power analysis would go to the question of whether an incumbent LEC could raise its retail prices unchecked; the impair analysis asks whether a new entrant can provide its services without the UNE. A market power analysis might be appropriate if the only goal of the Act were to drive prices to cost,[362] but that approach disregards the Act's other goals of encouraging the deployment of alternative facilities and new technologies and reducing regulation.

110. We also decline to adopt a standard that equates or hinges a requesting carrier's impairment with an incumbent LEC's market power in the wholesale market for the input in question. Some commenters argue that an incumbent LEC's market power in the wholesale market will permit it to charge prices above cost for that input, thus creating or worsening a cost disadvantage for new entrants.[363] Similar to our reasoning just above, we point out that the Act is not directly aimed at eliminating an incumbent LEC's market power in any particular market, but in identifying new entrants' impairment. While incumbent LECs control wholesale facilities in a manner that often creates market power, we look instead for whether new entrants are impaired without those facilities. Indeed, there may be circumstances where an incumbent LEC has market power with regard to a particular input, but competitors are not impaired without access to the element, so unbundling would not be appropriate and might discourage new entrants from

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360 *See supra* Part V.B.1.c.

361 *See, e.g.*, AT&T Nov. 14, 2002 *Ex Parte* Letter, Attach. at 2; AT&T Jan. 22, 2003 *Ex Parte* Letter, Attach.; AT&T Feb. 12, 2003 *Ex Parte* Letter, Attach. at 2 ("[A]n economically rigorous 'impairment' analysis must assess whether facilities-based entry by competitive carriers (or more generally, entry by competitive carriers without access to unbundled network elements at cost-based prices) will be able to stop the incumbent LECs from exercising market power."). Covad argues that we should always order unbundling in highly concentrated markets (calculated using the Herfindahl-Hirschman Index), presumptively order unbundling in moderately concentrated markets, and not order unbundling in unconcentrated markets. *See* Covad Reply at 8-14; Covad Reply, Reply Declaration of Terry L. Murray (Covad Murray Reply Decl.) at paras. 12-42.

362 *See* AT&T Nov. 14, 2002 *Ex Parte* Letter, Attach. at 2 ("[T]he Commission should continue to mandate unbundled access to network elements to the extent that such access is necessary to drive retail rates towards costs.").

363 *See, e.g.*, Allegiance Comments at 6-11; Allegiance Reply at 3, 18-20. Allegiance has specifically suggested that we should find impairment unless there are four non-incumbent LEC sources of supply, either self-provisioned or wholesale offerings. *See* Allegiance Comments at 9-10; Allegiance Reply at 3-4.

building their own facilities. In addition, an analysis that focused exclusively on the wholesale market would fail to give weight to the possibility or actuality of self-provisioning.

111. *HMG Analysis of Committed Entry.* We disagree with commenters that suggest that we should adopt the HMG's analysis of "committed entry" as our "impair" standard.[364] The HMG apply a three-pronged test to determine whether committed entry is likely to deter anticompetitive behavior post-merger.[365] Specifically, the HMG consider whether committed entry would be timely,[366] likely,[367] and sufficient[368] in response to a "small but significant and nontransitory" post-merger price increase. Although we recognize a substantial amount of commonality between the HMG's framework for assessing ease of entry and our analysis of entry barriers above,[369] we do not adopt the standards and framework of the HMG for evaluating committed entry.[370] First, in contrast to the HMG, we are not considering whether new competitors will enter the market in response to a "small but significant and nontransitory" price rise,[371] nor do we assume that incumbent LECs will be ceding a portion of the market to competitors due to this price rise. Second, contrary to commenters' urgings as discussed above, our impairment analysis does not share the HMG's goal of determining whether committed entry will check incumbents' market power.[372] Third, the HMG do not take into consideration the other goals we do here – particularly encouraging investment in new facilities by both incumbent

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364 *See* AT&T Nov. 14, 2002 *Ex Parte* Letter.

365 HMG § 3.0.

366 The HMG consider entry to be timely if it can have a significant market impact within two years of initial planning. *See* HMG § 3.2.

367 The HMG consider entry to be likely if it would profitable in the long run at pre-merger prices, if those prices are attainable. *See* HMG § 3.3.

368 The HMG consider entry to be sufficient if it will force market prices to their pre-merger levels. *See* HMG §§ 3.0, 3.4.

369 For example, as explained by Professor Willig on behalf of AT&T, the HMG ask whether entry would require significant sunk costs, HMG § 1.32, whether a new entrant could likely achieve a level of sales sufficient to be profitable, HMG § 3.3, and whether a new entrant suffers from absolute cost disadvantages as compared with the incumbent, HMG §§ 1.11, 1.32. And "[i]n short, consistent with established antitrust economics, the *Guidelines* conclude that the greater the magnitude of the fixed and sunk investment and the greater the scope of entry a new entrant needs to achieve unit costs that are comparable to the incumbent's, the less likely that such entry will occur." AT&T Nov. 14, 2002 *Ex Parte* Letter, Attach. at 3-8.

370 *See* AT&T Nov. 14, 2002 *Ex Parte* Letter, Attach.; *see also* Covad Murray Reply Decl. at paras. 43-51.

371 *But see* Covad Murray Reply Decl. at para. 25 (noting that "small but significant" price construct not directly relevant to impairment analysis).

372 *But see* AT&T Feb. 12, 2003 *Ex Parte* Letter, Attach. at 1 ("[A]ny economically rigorous impairment analysis must determine whether the denial of access to a particular network element at cost-based rates would enable incumbent LECs to exercise market power by charging supra-competitive prices, and . . . the *Guidelines* contain a logical and accepted framework for accomplishing such analysis.").

LECs and others – or the costs of unbundling that the courts have pointed out to us.[373] Finally, the time horizon of two years in the HMG is a fairly short period compared to the time it is likely to take for full competition to develop in local telecommunications, particularly on a facilities basis.[374] The Act effectively attempts a restructuring of the local telecommunications market, and it often takes decades for a new technology or organizational structure to completely replace the old structure. Building new facilities and networks and developing and delivering new services will take a substantial period of time. We recognize that adopting a standard that has been revised and improved over decades, and subject to much scrutiny in judicial and regulatory proceedings, would have the benefit of providing predictability to our analysis.[375] We cannot, however, adopt a standard that does not fit the purposes of the Act.

112. *Cost Disadvantages.* We reject the proposal to find impairment whenever entrants would suffer from a substantial cost disadvantage (such as five percent), regardless of whether entry is still possible.[376] In a related argument, Z-Tel urges us to find impairment when entrants are likely to sell less of their product without the UNE than they would with the UNE – which Z-Tel explains would be a consequence of cost disparities.[377] A cost disadvantage standard would focus on maximizing entry to the detriment of the other goals of the Act, such as

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[373] *See Iowa Utils. Bd.*, 525 U.S. at 428-29 (Breyer, J., concurring); *USTA*, 290 F.3d at 425, 427.

[374] *But see* Covad Murray Reply Decl. at paras. 7, 45.

[375] *See, e.g.*, Covad Reply at 10.

[376] *See, e.g.*, Z-Tel Reply, Declaration of George S. Ford (Z-Tel Ford Reply Decl.) at paras. 26-30, 43-49, 82-83; Letter from Donna Sorgi, Vice President – Federal Advocacy, WorldCom, to William F. Maher, Chief, Wireline Competition Bureau, FCC, at 2-3, *in* Letter from Gil M. Strobel, Counsel for WorldCom, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Jan. 8, 2003) (WorldCom Jan. 8, 2003 *Ex Parte* Letter); AT&T Jan. 22, 2003 *Ex Parte* Letter, Attach. at 8-9; Letter from Kemal Hawa, Counsel for MetTel and Bridgecom, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach. at 8 (filed Jan. 27, 2003) (MetTel Jan. 27, 2003 *Ex Parte* Letter) (noting importance of costs in impairment analysis); Letter from Gil M. Strobel, Counsel for WorldCom, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach. at 1-10 (filed Jan. 27, 2003) (WorldCom Jan. 27, 2003 *Ex Parte* Letter). Some commenters argue that new entrants' cost disadvantages could make entry unprofitable because incumbent LECs will likely lower prices to a level below entrants' costs (but above incumbent LECs' costs). *See, e.g.*, AT&T Nov. 14, 2002 *Ex Parte* Letter, Attach. at 3-4; WorldCom Jan. 8, 2003 *Ex Parte* Letter, Attach. at 1-5; Letter from Joan Marsh, Director, Federal Government Affairs, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 4-5 (filed Feb. 4, 2003) (AT&T Feb. 4, 2003 *Ex Parte* Letter). *But see, e.g.*, BOC Shelanski Reply Decl. at para. 3 ("Importantly, the case for impairment is not made by a showing that CLECs merely face some costs that are higher than the ILEC's corresponding costs."); SBC Jan. 14, 2003 *Ex Parte* Letter, Attach. 2 at 1-5 (arguing that an incumbent LEC cannot lower retail residential rates to keep out competitors because it serves many residential customers at a loss and relies on higher-end customers to make up the difference), Attach. 2 at 1-3.

[377] *See, e.g.*, Z-Tel Comments, Attach. 4, Z-Tel Public Policy Paper No. 5, *Some Thoughts on Impairment: An Economic Analysis of the Impairment Standard of the 1996 Telecommunications Act*; Z-Tel Reply at 21-25; Z-Tel Ford Reply Decl. at paras. 26-30 ("[I]t seems reasonable that to constitute a statutorily cognizable impairment, there must be a small, but significant and non-transitory decrease in the requesting carrier's output."); Letter from Timothy J. Simeone, Counsel for Z-Tel, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach. 1 at 5-7 (filed July 24, 2002) (Z-Tel July 24, 2002 *Ex Parte* Letter).

innovation, deployment of new technologies, and reduced regulation, which goals are most likely to be met through facilities-based competition. Second, entry may be possible despite cost disadvantages, and our "impair" standard takes into account costs as compared with potential revenues.[378] Indeed, unbundling when there are only small cost disadvantages is likely to make it more difficult for facilities-based competitors to compete against entrants relying on TELRIC-priced UNEs,[379] and would skew our analysis of marketplace evidence away from examining the presence of facilities-based entrants. Thus, we consider cost disadvantages as they reflect the factors described in our impairment standard, but we will consider them to create an impairment only when they are substantial enough to be likely to make entry into a market uneconomic, taking into consideration available revenues and any countervailing advantages that new entrants may have.[380] Similarly, we cannot agree that *any* cost a new entrant faces that is greater than the relevant TELRIC price necessarily demonstrates impairment.[381] The Supreme Court explicitly rejected this as an approach to impairment, criticizing a standard that equates "*any* increase in cost" to impairment.[382] Likewise, the D.C. Circuit criticized the Commission for "rely[ing] on cost disparities that are universal as between new entrants and incumbents in *any* industry."[383]

113. *Wholesale Market for Alternatives to the Incumbent LECs' Networks.* We disagree that we should continue to require unbundling of a network element until a vibrant wholesale market for that element exists, or that a wholesale market is the best evidence of the

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378 *See, e.g.*, Verizon Oct. 16, 2002 *Ex Parte* Letter at 5 ("If an entrant's cost of providing an alternative element is higher than the incumbent's, but the entrant nevertheless can profitably do so because it can sell other services, avoid other costs, or achieve qualitative advantages in a way that is not available to the incumbent, the element can be supplied competitively and unbundling cannot be required. The question is whether the entrant can provide an overall service that is competitive, not whether the cost of each input matches that of the incumbent.").

379 UNEs are priced using the TELRIC methodology. *See Local Competition Order*, 11 FCC Rcd at 15812-929, paras. 618-862. TELRIC prices reflect the forward-looking economic cost of the incumbent LEC's facilities, which take into account the scale and scope economies of the incumbent. *Id.* at 15846-47, para. 679. Thus, if scale economies are present, it would be difficult for an entrant with a small market share to achieve costs as low as the TELRIC price. *See also* BellSouth Comments at 12 ("The Commission's TELRIC pricing requirements effectively imposed an upper limit on what facilities-based carriers could charge, without losing customers to non-facilities-based UNE-P carriers."); SBC Reply at 23.

380 WorldCom Jan. 27, 2003 *Ex Parte* Letter, Attach. at 7 ("Under existing precedent, therefore, the key objective is to determine *when* cost differences translate into impairment, not to adopt an approach unrelated to cost differences.") (emphasis in original).

381 *But see, e.g.*, BellSouth Comments at 25; Qwest Comments at 12-14; Verizon Comments at 58 (urging the Commission not to find impairment based on the cost difference between using alternatives to UNEs and using TELRIC-priced UNEs); Allegiance Reply at 11-12 (arguing that TELRIC does not equate to the incumbent LEC's cost); Qwest Reply at 10-11; Verizon Reply at 40.

382 *Iowa Utils. Bd.*, 525 U.S. at 389 (emphasis in original); *see also* SBC Comments at 34 (arguing that under Supreme Court precedent, cost differentials standing alone cannot constitute impairment).

383 *USTA*, 290 F.3d at 427 (emphasis in original).

feasibility of self-provisioning.[384] First, while this approach might ensure that competitors have access – either through wholesale alternatives or access to UNEs – we are concerned that this approach might discourage investment in facilities by competitors. As we have emphasized above in our "impair" standard, one of the goals of the Act, impressed on us by the courts, is investment in facilities by both incumbent LECs and new entrants.[385] Second, as we noted in the *UNE Remand Order*, this approach disregards the possibility of self-provisioning as an alternative to using the incumbent LEC's network, contrary to the Supreme Court's direction.[386] Indeed, with regard to certain elements like switching, self-provisioning is far more common than leasing access from another non-incumbent LEC provider. While the record contains substantial evidence of self-deployment, we have little to no evidence of a wholesale market for switching services from alternate vendors.

114. *Evaluating Impairment Based on the Level of Retail Competition.* We do not adopt a standard that asks whether competition (as opposed to competitive carriers) is "impaired"[387] or base our impairment determination on whether the level of retail competition is sufficient such that unbundling is no longer required to enable further entry.[388] As explained above, evidence of retail competition over non-incumbent LEC facilities informs our analysis of whether competitive LECs are impaired without access to UNEs. But some carriers, for example, suggest that we not require any unbundling in markets where competitors have achieved a particular market share, where competitors have a certain number of collocations, or where consumers have a choice of facilities-based providers.[389] We decline to determine impairment based on a certain level of retail competition because section 251(d)(2) requires us to ask whether requesting carriers are "impaired," not whether certain thresholds of retail

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384 *See, e.g.*, CompTel Comments at 63-64 (arguing that the existence of a wholesale market is "key evidence" in deciding whether to unbundle an element, and that the absence of such a market is "*prima facie*" evidence that self-deployment is not feasible); UNE-P Coalition Comments at 21; SWCTA Reply at 8; *see also* Covad Reply at 12 (arguing that the Commission should assess the state of the wholesale market in applying an HMG analysis as described *supra* para. 109). *But see* Verizon Jan. 10, 2003 *Ex Parte* Letter, Attach. at 8 (arguing that the Act does not require a wholesale market to exist before finding no impairment for switching).

385 *See supra* Part V.B.1.a; *see also USTA*, 290 F.3d at 427.

386 *See UNE Remand Order*, 15 FCC Rcd at 3727, para. 56; *see also Iowa Utils. Bd.*, 525 U.S. at 389.

387 *See* BOC Shelanski Reply Decl. at para. 11.

388 *Cf.* ITTA Jan. 29, 2003 *Ex Parte* Letter, Attach. at 3-4 (urging Commission not to adopt a multiple-competitor standard); Letter from Ann D. Berkowitz, Project Manager – Federal Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach. at 2 (filed Jan. 14, 2003) (Verizon Jan. 14, 2003 *Ex Parte* Letter).

389 *See, e.g.*, Letter from Karen Brinkmann, Counsel for ACS, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 13-14 (filed Jan. 6, 2003) (ACS Jan. 6, 2003 *Ex Parte* Letter); Letter from Karen Brinkmann, Counsel for ACS, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 3 (filed Jan. 16, 2003) (ACS Jan. 16, 2003 *Ex Parte* Letter). *But see* GCI Jan. 27, 2003 *Ex Parte* Letter, Attach. at 4, 7-8.

competition have been met.[390] While it is true that retail competition is a goal of the 1996 Act, it is not the only goal, and a standard that focused exclusively on retail competition would do so at the expense of Congress's other goals, such as investment in new facilities. Moreover, the relationship between retail competition and unbundling is complex. In many instances, retail competition depends on the use of UNEs and would decrease or disappear without those UNEs; thus, a standard that takes away UNEs when a retail competition threshold has been met could be circular.[391] While evidence of retail competition over non-incumbent LEC facilities is highly relevant to our impairment analysis as explained above,[392] retail competition that relies on incumbent LEC facilities – whether UNEs, resale, or tariffed services – does less to inform our impairment analysis.[393] We explain in greater detail below why we do not conduct an analysis of individual services, and the levels of competition for those services, below.[394]

115. *Impairment of Individual Requesting Carriers or Carriers Pursuing a Particular Business Strategy.* We will not, as some commenters urge, evaluate whether individual requesting carriers or carriers that pursue a particular business strategy are impaired without access to UNEs.[395] We recognize that section 251(d)(2) refers to "*the* telecommunications carrier seeking access," but such a subjective, individualized approach could give some carriers access to elements but not others, and could reward those carriers that are less efficient or whose business plans simply call for greater reliance on UNEs. Providing UNEs to carriers with more limited business strategies would also disregard the availability of scale and scope economies gained by providing multiple services to large groups of customers.[396] Thus, an entrant is not

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[390] *See* 47 U.S.C. § 251(d)(2).

[391] *See, e.g.*, GCI Jan. 27, 2003 *Ex Parte* Letter, Attach. at 1.

[392] *See supra* Part V.B.1.d.(ii); Verizon Jan. 14, 2003 *Ex Parte* Letter, Attach. at 2. Indeed, retail competition from multiple market participants that do not rely on incumbent LEC facilities at all may well demonstrate, as explained above, that barriers to entry in the relevant market at not so high as to make entry uneconomic.

[393] *See supra* para. 102.

[394] *See infra* Part V.B.2.c.

[395] *See, e.g.*, ALTS *et al.* Comments at 37-38; ACS Comments at 2-8 (arguing that that Commission must determine whether each competitor – including small competitive LECs – needs access to UNEs); GCI Comments at 19-20; Z-Tel Comments at 22-24; BellSouth Reply at 13 (arguing that the Commission should require individual competitive LECs to demonstrate both that they are "reasonably efficient" and that alternative elements are not available to them); NewSouth Reply at 11; Z-Tel Reply at 22; BellSouth NERA Reply Decl. at para. 135; Z-Tel Ford Reply Decl. at paras. 24-25; ACS Jan. 6, 2003 *Ex Parte* Letter at 9-11 (urging Commission to find Alaskan competitor not impaired); ACS Jan. 16, 2003 *Ex Parte* Letter (urging Commission to find Alaskan competitor not impaired); Letter from Karen Brinkmann, Counsel for ITTA, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach. at 1 (filed Jan. 27, 2003) (ITTA Jan. 27, 2003 *Ex Parte* Letter). *But see, e.g.*, Qwest Reply at 24-25. The Commission also disagreed with this approach in the *UNE Remand Order*. *See UNE Remand Order*, 15 FCC Rcd at 3725-27, paras. 53-54.

[396] For example, a carrier could claim that it would be unable to pursue a strategy of providing local exchange service to all people with the first name "Sam." Because of the relatively small number of people with that name, the cost of providing such service would likely be very high, and thus entry would be impossible without UNEs. However, an entrant could achieve a much lower average cost of service while serving these people, by pursuing a (continued….)

impaired if it could serve the market in an economic fashion using its own facilities, considering the range of customers that could reasonably be served and the services that could reasonably be provided with those facilities. Furthermore, a carrier- or business plan-specific approach would be administratively unworkable for regulators, incumbent LECs, and new entrants alike because it would require case-by-case determinations of impairment and continuous monitoring of the competitive situation. Finally, we do not read *Verizon* to state the contrary.[397] While *Verizon* noted that smaller entrants may be in greater need of UNEs than larger carriers,[398] the Supreme Court made those factual observations in the context of defending unbundling in general, not in the context of requiring any particular kind of impairment analysis. Thus, we agree with commenters that argue we cannot order unbundling merely because certain competitors or entrants with certain business plans are impaired.[399] Rather, we will achieve needed granularity through consideration of other factors discussed below in Part V.B.2.

116. For similar reasons, we decline to make impairment determinations on an incumbent LEC-by-incumbent LEC basis.[400] The "impair" inquiry of section 251(d)(2) focuses on requesting carriers, not incumbent LECs.[401] We recognize, however, that many aspects of our impairment analysis may coincidentally turn on the incumbent LEC, such as potential revenue opportunities, geographic areas (as explained below in Part V.B.2.b regarding Geographic Granularity), and costs. Likewise, we do not resolve here disputes between particular incumbent LECs and requesting carriers over compliance with the Act and our rules.[402] Such disputes are better handled in an enforcement context, not in a rulemaking.

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business strategy of providing service to all potential customers in the market. It might be able to further lower its costs by offering other services, such as vertical features and data services. Our determination is thus based on an entrant providing the full range of services and to all customers supported by the marketplace. Our analysis must, however, take into account diseconomies of scale and scope that might exist, such as limitations on what services customers are willing to purchase as a bundle from a single provider. *But see* BTI Comments at 6 (noting that competitive LECs cannot compete with incumbent LEC scale economies); Eschelon Comments at 11-14 (noting that a competitive LEC that serves geographically dispersed customers may not be able to construct a duplicative network).

[397] *See* NewSouth Reply at 11; Z-Tel Ford Reply Decl. at para. 24.

[398] *See Verizon*, 535 U.S. at 503 n.20, 510 n.27.

[399] *See* Competitive Enterprise Institute Comments at 3 (cautioning Commission against setting different standards for different carriers); Verizon Comments at 42-43; BOC Shelanski Decl. at para. 39 (pointing out that antitrust law focuses on harms to competition, not harms to individual competitors). *But see, e.g.*, Eschelon Comments at 8 (noting that smaller, newer competitive LECs may face higher hurdles than larger, established competitive LECs).

[400] *See, e.g.*, ACS Jan. 6, 2003 *Ex Parte* Letter at 9-11 (arguing that unbundling is no longer warranted for Alaskan incumbent subject to substantial retail competition).

[401] 47 U.S.C. § 251(d)(2)(B) (The unbundling inquiry asks whether denial of a UNE "would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.").

[402] *See, e.g.*, Letter from Frederick W. Hitz, III, Director, Rates and Tariffs, General Communication, Inc., to William Maher, Chief, Wireline Competition Bureau, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 11, *in* Letter from John T. Nakahata, Counsel for GCI, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-
(continued....)

117. *UNEs As Purely Transitional Measures for Competitive Development.* We recognize, as the Commission did in the *UNE Remand Order*, that in some instances (discussed in greater detail in the Parts on specific UNEs) UNEs can serve as transitions to facilities-based competition.[403] We do not, however, agree with commenters that urge that all UNEs must necessarily be limited to temporary availability.[404] The Act requires incumbent LECs to make an element available so long as requesting carriers would be impaired without it. While we could find impairment to be limited in time based on specific evidence in the record, we could not generally limit UNEs based on speculation that, at some time in the future, competitors might no longer be "impaired." Rather, we will let the facts and evidence guide our determination as to when unbundling obligations can be lifted.

2. Granularity of the Impairment Analysis

118. In this Part, we explain how and why our approach to unbundling will be granular. In the *Triennial Review NPRM*, the Commission asked many questions about whether and how to make the unbundling analysis more granular by considering such factors as specific services, specific geographic locations, the different types and capacities of facilities, and customer and business considerations.[405] Subsequently, the *USTA* decision directed us to approach the section 251(d)(2) impairment analysis by considering "market-specific variations in competitive impairment."[406] As explained in detail below, we will apply several types of granularity in our unbundling analysis, including considerations of customer class, geography, and service.[407] In

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147 (filed Nov. 21, 2002) (GCI Nov. 21, 2002 *Ex Parte* Letter); ACS Jan. 6, 2003 *Ex Parte* Letter at 6-9; Letter from Frederick W. Hitz, III, Director, Rates and Tariffs, General Communication, Inc., to William Maher, Chief, Wireline Competition Bureau, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 2-10, *in* Letter from John T. Nakahata, Counsel for GCI, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Jan. 23, 2003) (GCI Jan. 23, 2003 *Ex Parte* Letter). We therefore dismiss as moot the portion of the CompTel Nov. 26, 2001 Joint Conference Petition in which CompTel requests that the Commission not consider lifting unbundling obligations for a UNE unless the incumbent LEC making the request has "fully complied with its obligation to provide the UNE for a commercially reasonable period of time." CompTel Nov. 26, 2001 Joint Conference Petition at 14.

403 *See UNE Remand Order*, 15 FCC Rcd at 3700-01, paras. 6-7; *see also, e.g.*, New York State Attorney General Reply at 14; Letter from James W. Cicconi, General Counsel and Executive Vice President – Law & Government Affairs, AT&T, to Michael K. Powell, Chairman, FCC, *et al.*, CC Docket Nos. 01-338, 96-98, 98-147 at 14-15 (filed Nov. 13, 2002) (AT&T Nov. 13, 2002 *Ex Parte* Letter).

404 *See* Verizon Comments at 26-27, 70; Verizon Reply at 45, 60; *see also* Alcatel Comments at 21. *But see, e.g.*, California Commission Comments at 15; Eschelon Comments at 17; Maine CLEC Coalition Comments at 7; Colorado Commission Reply at 3-4; Sprint Reply at 14-15; WorldCom Oct. 23, 2002 *Ex Parte* Letter, Attach. at 16.

405 *Triennial Review NPRM*, 16 FCC Rcd at 22797-98, paras. 34-35.

406 *USTA*, 290 F.3d at 422.

407 *See, e.g.*, GCI Comments at 20; BOC Shelanski Decl. at para. 40 (arguing that the Commission should define markets in terms of product and geography); BellSouth Reply at 10 (stating that *USTA* supports the views that "[d]ifferentiated (or 'partial') national unbundling rules are sustainable"; "[t]he Commission is capable of making market differentiations"; and "[a] nuanced concept of impairment requires a consideration of specific markets or market categories"); Ohio Commission Reply at 6; Qwest Reply at 26; SBC Reply at 67-68; BOC Shelanski Reply

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